

NANOPOROUS MEMBRANE REACTOR FOR MINIATURIZED REACTIONS AND ENHANCED REACTION KINETICS

Abstract

Reactors and methods for miniaturized reactions having enhanced reaction kinetics. In particular the subject matter is directed to chemical and biological reactions conducted in a nanoporous membrane environment. The subject matter contemplates methods for modifying the kinetics of reactions and devices for conducting reactions having modified kinetics. The subject matter also provides systems for rapid miniaturized reactions. Further the subject matter includes methods and kits for conducting a reaction with enhanced throughput and methods of conducting miniaturized, high throughput analyses of reaction products, and the like. Reactions performed on or within a nanoporous membrane exhibits improved kinetic characteristics.